

Serial No. 10/735238

- 2 -

Art Unit: 2112

In the claims:

1. (currently amended) An arbiter for controlling access to a shared resource by at least two devices, the arbiter including:

a set of control bits for each of the at least two devices, each set of control bits accessible by the associated one of the at least two devices, and including a request bit and a grant bit;

arbitration logic, coupled to the set sets of control bits, for controlling access to the shared resource, the arbitration logic operating responsive to the request bits for each of the at least two devices to set the grant bit of one of the at least two devices according to an arbitration protocol, wherein the set of control bits further includes an override bit for enabling a first one of the at least two devices to take control of the shared resource away from a second one of the at least two device.
2. (cancelled)
3. (currently amended) The arbiter of claim 1, An arbiter for controlling access to a shared resource by at least two devices, the arbiter including:

a set of control bits for each of the at least two devices, each set of control bits accessible by the associated one of the at least two devices, and including a request bit and a grant bit;

arbitration logic, coupled to the sets of control bits, for controlling access to the shared resource, the arbitration logic operating responsive to the request bits for each

Serial No. 10/735238

- 3 -

Art Unit: 2112

of the at least two devices to set the grant bit of one of the at least two devices according to an arbitration protocol, wherein the arbiter further includes a mux, coupled between the at least two devices and the shared resource and wherein the set of control bits further includes a reset bit for resetting the mux.

4. (original) The arbiter of claim 1, wherein the arbitration protocol includes an IDLE state and a GRANT state for each one of the at least two devices, and wherein transitions are made between the IDLE states and the GRANT states in response to the set of control bits.
5. (currently amended) The arbiter of claim 3 4, wherein the shared resource is a disk drive, and wherein the arbiter further includes a mux, is coupled between the at least two devices and the disk drive, wherein each of the at least two devices provides input signals to the mux, and wherein the arbitration logic controls selection of the mux to thereby control access to the disk drive by the at least ~~at~~ two devices.
6. (original) The arbiter of claim 5, further comprising at least two controllers, each one of the at least two controllers disposed between a corresponding one of the at least two devices and the mux, each controller providing signals for controlling operation of the disk drive.
7. (original) The arbiter of claim 6, wherein the disk drive is a Serial AT Attached (SATA) disk drive, the controller is a SATA controller and the mux is a SATA mux.
8. (currently amended) A method for controlling access to a shared resource by at least two devices, the method including the steps of

Serial No. 10/735238

- 4 -

Art Unit: 2112

selecting, responsive to a set of control bits associated with at least two devices coupled to the shared resource, one of the at least two devices for access to the shared resource, wherein the set of control bits includes a request bit and a grant bit for each one of the at least two devices ; and

a first one of the at least two devices taking control of the shared resource away from a second one of the at least two devices by setting an override bit associated with the first one of the at least two devices.

9. (currently amended) The method according to claim step 8, includes the steps of granting access to at least one of the devices by setting the grant bit associated with the at least one of the devices device, in response to the request bit associated with the at least one of the devices being set.
10. (cancelled)
11. (currently amended) A method for controlling access to a shared resource among a first device and a second device, the method including an arbitration process having a first device idle state, a first device grant state, a second device idle state and a second device grant state, the method including the steps of:  
the first device requesting access to the shared resource;  
granting access to the first device and transitioning the arbitration process from a first device idle state to a first device grant state in response to the first device requesting access to the shared resource and an override bit not being set by the second device;  
indicating, by the first device, that it has completed use of the resource;  
and

Serial No. 10/735238

- 5 -

Art Unit: 2112

~~transitioning the arbitration process from the first device grant state to the first device idle state in response to the indication from the first device that it has completed use of the shared resource.~~

12. (cancelled)
13. (cancelled)
14. (Cancelled)
15. (cancelled)